

LINEAR AMPLIFIER

AM-6155/GRT-22
LINEAR POWER
AMPLIFIER (ITT
Model 3212),
designed for
50 watt output
from 10 W exci-
ter input over
225-400 Mhz.

Uses Kima X6512 tetrode in silver-plated cavity housed in removable drawer; 175-turn counter dial for tuning. Cavity has added feature VHF/UHF switch facilitating conversion AM-6155 to 116-150 Mhz VHF range with some circuit changes. Main chassis contains solid-state power supply and buffer amp/multiplier; test meter on panel monitors voltages. Requires 105/120/210/240 VAC 50-400 Hz and +20 V reg 60 ma, +20 V keyed. 7x19x18 $\frac{1}{2}$, 80 lbs sh in two packages. Schematic packet included. Used-excellent, not tested, \$149.50

REMOTE SIGNALLER

REMOTE SIGNALLER
RECEIVER & TRANS-
MITTER, intended
use was for the
transmitter to be
actuated by a
telephone bell.
The transmitter
would then sig-
nal the receiver via
the power line and
activate the receiver's
outlet to which a lamp
or other appliance could
be connected. Maxi-
mum outlet load 200 watts.
Transmitter has
telephone pick-up coil, op-amp,
and tone oscillator. Receiver
has 567 tone decoder circuit
and triac control circuit for the
outlet. Each has On-Off switch, 5' cord,
and measures 3x4x1 $\frac{1}{2}$; 3 lbs sh. Schematic included,
may need minor repair. #RMS-R/T, \$8.95



FACSIMILE TRANSCIVER

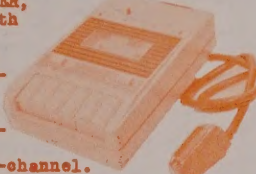


STEWART-WARNER MODEL 180
DATAFAX TRANSCIVER, fac-
simile machine designed
to send and receive
printed matter and images
over telephone lines or
private wire. Produces
up to six shades of gray.
Drum scanner speed: 180 RPM;
6 minute transmission time for
8x11 message. Receives 1500-2500 Hz signal;
2150 Hz required to activate demodulator.
Select manual or automatic operation modes.
Uses 200' rolls of facsimile paper (not a-
vailable). Units tested for basic send-recei-
ve; some adjustments may be necessary. Schem-
atic & info packet included. Requires 100-127
VAC 60 Hz. 16x12x21, 70 lbs sh. Used, \$175.00

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8x11 message. Receives 1500-2500 Hz signal;
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Select manual or automatic operation modes.
Uses 200' rolls of facsimile paper (not a-
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ve; some adjustments may be necessary. Schem-
atic & info packet included. Requires 100-127
VAC 60 Hz. 16x12x21, 70 lbs sh. Used, \$175.00

DATA CASSETTE

DATA CASSETTE RECORDER,
adaptable for use with
most microcomputers
having RS-232 input.
Functions: Eject, Re-
cord, Rewind, Ready,
Forward, Stop, Read-
from-Tape, and Write-
on-Tape. Tape speed
1-7/8 ips, 4-track 2-channel.
Similar to Monroe Model 392. Requires -12 -3
45 V. Includes 3' cable w/DB-25F plug & book.
8x5x3, 4 lbs sh. #DC-REC, unused, \$29.95



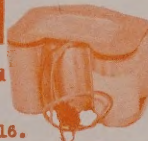
500 WATT REGULATOR



CN-514/GRC AUTO-
MATIC VOLTAGE
REGULATOR, regu-
lates inputs of
95 to 135 VAC
47.5 to 63.5 Hz
to output of 115
VAC $\pm 1\%$ over a
current range of 0 to 43 amps. Uses motor
driven variable autotransformer with drive
circuit and buck-boost transformer for regu-
lation. Has standard duplex outlet unregu-
lated output, duplex outlet regulated, and
seven Amphenol-type connector outlets. Also
2 $\frac{1}{2}$ " rd 0-150 VAC meter and circuit breaker.
operates in manual or automatic modes. 8x17
x15; sh wt two pks 70/80 lbs. Used, \$125.00

12 V 5 A BATTERY

GATES LEAD-ACID BATTERY PACK
six 2 VDC 5 amp cells connected
to produce 12 VDC 5 A. These
are rechargeable. Each cell
3x1 $\frac{1}{2}$ " dia; 7 lbs. #0800-0041 \$16.



URC-68 DISTRESS RADIO

AN/URC-68 DISTRESS TRANSMI-
VER, handheld unit designed
as an emergency radio for
aircraft pilots; operates
over 38-42 Mhz FM and 230-250
Mhz using 4 preset channels,
voice, MCW, and beacon. All
have 40.5 Mhz FM and 243 Mhz
UHF channels; other three
frequencies depend on selected
crystals (not available), 50
Khz spacing. Power output 500
MW (FM), 200 MW (UHF); range 19 miles line
of site or 3-5 miles over varied terrain.
Includes squelch, built-in microphone,
speaker, and antenna. Requires 11-16 VDC
originally supplied by RA-1112 battery (not
available). 6x3 $\frac{1}{2}$ x1 $\frac{1}{2}$, 3 lbs sh. Used-reparable
with receiver and transmitter output, \$99.50
AS-IS, no output but good modules, \$69.50
MANUAL, partial reproduction, \$10.00



HICKOK MULTIMETER



HICKOK 1604M SOLID-STATE MULTI-
METER, achieves high gain by
using chopper to allow use of
AC-coupled amplifiers. AC re-
sponse to 700 Mhz and AC volt
ranges 0-0.5-1.5-5-15-50-150-
300 VAC. Eleven DC volts full
scale ranges from 0-0.5 V to
1500 V in 15-50-150 sequences.
Fourteen DC current ranges 0
to 1.5 nanoamp to 150 ma in 1.5-50-15
sequence. Resistance ranges from 0-500 ohms to
500 megohms in seven steps. AC probe uses
EA53 tube. Includes AC and DC probes, two
test leads, and partial repro of manual. Re-
quires 115/230 VAC 50-400 Hz. 7x5x9 $\frac{1}{2}$, 13
lbs sh. Used-reparable, \$95. Checked, \$140.
T-CONNECTOR for 1604M, \$20 w/purchase of set.

TRANSISTOR TESTER

HICKOK MODEL 1890M TRANSIS-
TOR TESTER, checks transis-
tors in and out of circuit.
Collector leakage current
(I_{cbo}) ranges: 0-50-500 ua
and 50 ma. Collector
current (I_c) 0-1-10-100 ma.
Current gain Beta: 0-50-100
-200-400. AC test signal
1000 Hz. Transistor input
resistance range 50-10000 ohms; circuit input
impedance 25-100000 ohms. Collector voltages
0-1.5-3-4.5 VDC. Has transistors 4/2N651A,
2N650A. Requires batteries (not supplied)
Eveready 763 (22.5 V) and two Burgess 2370-ST
(4.5-3-1.5 V). With partial repro of manual.
10x10x9 $\frac{1}{2}$, 18 lbs. Used-reparable, \$54.50



DUAL TRACE 15 MHZ SCOPE



TEKTRONIX 516 OSCILLOSCOPE
featuring DC to 15 Mhz re-
sponse, dual-trace, and 5"
CRT. Vertical sensitivity:
0.05 to 20 v/div in nine cal-
ibrated steps, to 50 v/div
using vernier; 23 msec rise-
time. Sweep range 0.2 usec/div
to 2 sec/div in 22 calibrated
steps, to 6 sec/div with vern-
ier; 15 trace magnifier. Dual
trace modes Channels A or B only, chopped,
or alternate. Squarewave calibrator in 11-
steps from 0.05 to 100 V. Automatic trigger-
ing; external trigger requires 0.5-25 V sig-
nal. 115 VAC 60 Hz; 13x9x21 $\frac{1}{2}$, 50 lbs sh.
w/book. Used-reparable, \$185. Checked, \$235.

Fair Radio Sales Co.

1016 E. EUREKA ST.

P. O. BOX 1105

Lima, Ohio 45802

PHONE: 419/227-6573

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Permit No. 74

WS-83 CATALOG SUPPLEMENT

0.5-32 MHZ RECEIVER

R-392/URR RECEIVER, 0.5-32 Mhz AM-CW
in 32 one Mhz bands using digital
mechanical tuning. Triple conversion
on lower 8 bands, double on others.
Selective bandwidth 2-4-8 Khz; 100
Khz crystal calibrator points. With
25 tubes of 26A7, 26A6, 26C6, 26D6,
6AJ5, 12AU7. Requires 24-28 VDC 5 amps. Rugged ve-
hicular version of the famous R-390 receiver. 11x14 $\frac{1}{2}$
x11; 65 lbs sh, 52 lbs net. Used-reparable, \$135.00
Checked, \$200. Power connector, \$5 with set purchase
MANUAL for R-392, partial repro \$15. SCHEMATIC only \$3.
IS-166/U SPEAKER with cable & connector r/R392, \$10.95
24 VDC 6 AMP SUPPLY, 115 VAC in; no connector, \$25.00



GOD IS JUST
A PRAYER AWAY



PRICES ARE F.O.B. LIMA
ITEMS OVER 70 LBS. SHIPPED
MOTOR FREIGHT COLLECT
INCLUDE PAYMENT IN FULL.
USE YOUR MASTERCARD OR VISA.
STORE HOURS: Monday thru Friday 9 to 5:30
Saturday 9 to 1:00

WIRE SALE

RIBBON CABLE for computer wiring or similar jobs; 20-conductor #22 stranded wire with ten color codes 10' 100' 500' 1000' Price per foot: \$1.00 .75 .65 .50

COMPUTER CONTROL CABLE in black PVC jacket, 20-conductor #24 wire in color coded vinyl. LV - low voltage type. Priced per foot: 10' 100' 500' 1000' 2000

VINYL-COVERED HOOK-UP WIRE, various colors; all stranded copper. On orders above 2000' we may not be able to ship continuous length.

'0' GAUGE CABLE 2-CONDUCTOR "0" GAUGE POWER CABLE in PVC jacket. Use for making welder cables, jumper cables, or wind generator hook-up.

MULTI PUSH SWITCHES SWITCHCRAFT® DW MULTI-SWITCHES, each push button section DPDT silver-plated brass contacts; 3 amps AC, 0.5 A DC 125 V non-inductive. Can use T-1/2 size lamp for optional illumination. 2 lbs sh

DIGITAL PANEL METER WESTON 1260-S DIGITAL PANEL METER, 2 1/2 digit 0.01 to 1.99 VDC range; 0.5" high Nixies. 0.5% accuracy; 1 sec full scale response, 25% overrange. No logic levels or BCD output. Requires 50-400 Hz. 1 1/2 x 4 1/2, 2 lbs. Unused \$27.

TCS SPEAKER-CONTROL UNIT, has 5" dia permanent magnet 6 ohm speaker, 500 to 6 ohm audio transformer, volume control, headphone and mic jacks, and three toggle switches. 5 1/2 x 7 1/2 x 3 1/2, 8 lbs. #TCS-23270, \$12.95

2 TO 12 MHZ RECEIVER SECTION from GRC-9 backpack transceiver, 2-12 Mhz in 3 bands AM-CW; 456 KHz IF, 200 KHz calibration points. Controls AF-, RF-gain, headset jacks. Tubes 2/1L4, 3/1R5, 1R5, 3Q4; less grid bias battery. Requires 1.4 V 450 ma, 105 V 20 ma. 5x10 1/2 x 2, 10 lbs. #REC/GRC-9, \$24.95

BOX CAMERA The MAJOR BOX CAMERA by National Instrument, uses 620 film for 2 1/2" square pictures; metal construction. We discovered several cartons of these in our warehouse. Each is in its original gift box with instructions. 4x 2 1/2 x 3 1/2, 2 lbs sh wt. Unused, \$3.95

TRANSFORMERS

COMMERCIAL GRADE TRANSFORMERS suitable for constructing DC regulated power supplies or ether. All 115 VAC 60 Hz primaries; end bell style with wire leads. NEW:

#701-145, 36 VCT 4 amps, 5 V 1 amp; 3 1/2 x 3 1/2, 5 lbs sh wt. \$6.95 #TS-465, 44 VCT 3.5 amp, 30 VCT 1.2 A, 9 V 1 A; 4x3 1/2 x 3 1/2, 7 lbs. \$5.75 #701-221, 46 VCT 3.5 amps, 7.5 V 2 A; 4x3 1/2 x 3 1/2, 6 lbs sh. \$5.95 #TA-600, 48 VCT 3.75 amps, 48 VCT 1 A; 4 1/2 x 3 1/2 x 3 1/2, 8 lbs sh. \$5.85 #701-129, 50 VCT 2 amps, 6 V 2 A; 3 1/2 x 3 1/2, 5 lbs sh. \$4.95 #701-206, 115/230 VAC primary; secondary two 55 VCT 3 A; 4 1/2 x 4 1/2 x 3 1/2, 10 lb \$7.95 #701-203, 55 VCT 4.5 amps, 7 V 2 A; 4x4x3 1/2, 10 lbs sh. \$7.95 #701-205, 2/55 VCT 4 A; 4 1/2 x 4 1/2 x 1 1/2 lb. \$9.95 #701-206, 115/230 VAC primary, secondary two 55 VCT 3 A; 4 1/2 x 4 1/2 x 3 1/2, 10 lb. \$9.50

5030 VCT 500 MA 5030 VCT 500 MA PLATE TRANSFORMER, p/e BC-610E; 115 VAC 60 Hz primary. 9 1/2 x 7 1/2 bottom mounting plate; o/a 12x11x10, 115 lbs. #2Z9612-1 used \$67.50

IGNITION XFORMER VERY HIGH VOLTAGE TRANSFORMER Pri: 115 VAC 60 Hz Sec: 7300 V 5 ma. Mounting flange 6 1/2" across. Xformer 4x5 1/2 x 4 1/2, 10 lbs sh. #AX-44324 used \$9.95

COPPERCLAD SINGLE-SIDE COPPERCLAD etching board for making printed circuits. 1/16" thick blue fiberglass backing; 12"x18", 1 lb. #FIB-12x18 \$2.75; 5/\$11

OSCILLATOR IIT TRANSISTORIZED CRYSTAL OSCILLATOR & BUFFER, originally used in IIT 3201/3202 transmitters (AN/GRT-21-22)--companions to Model 3211/3212 (AM-6154/6155) power amps. 56-99 Mhz crystal oscillator output was fed into a doubler (VHF) or quadrupler (UHF). Has external osc-input, tuning meter, and even output. Requires 5th overtone HC-6 (20 pc) xtal, 12-18 VDC reg for osc, and 22-39 VDC 1 A for heater. W/HNC and two sub-mini 27 (UG-1465) connectors, power input DEC 9P connector, schematic. 6 1/2 x 2 1/2 x 3 1/2, #OSC-99828, \$10.

R-390A/URR RECEIVERS, 0.5 to 32 Mhz AM-CW in 32 one Mhz bands read on mechanical digital counter; 455 KHz IF, mechanical filters. Used-repairable, \$350.00; Checked, \$450.00

LAMBDA DC POWER SUPPLY rackmount with two meters each; also aux 6.3 VAC 10 A output. Used #C81M, 125-325 VDC 400 ma; 70 lbs sh., \$60. #C880M, 0-200 VDC 800 ma; 81 lbs sh., \$80.00

RADIOTRON UX-200

RCA RADIOTRON UX-200 TUBES in original RCA boxes. These early-1920's detectors were usually in circuit with four 201/301 tubes and are now harder to find than 201/301's

MORE UNUSUAL GLASS VACUUM TUBES which failed test standards but may be of interest to the collector or experimenter. Descriptions in left-right order. #250TH-R, 250TH EMITTING TRIODE stands 10" high, 3 1/2" dia at widest point; takes 4-pin bayonet base. 2 lbs sh wt. \$8.00 #304TL-R, 304TL EMITTING TRIODE, 7"Hx3 1/2" dia, jumbo 4-pin base; 3 lbs sh. \$6.50 #371/VT-166 HALF-WAVE RECTIFIER, 8 1/2"Hx2 1/2" dia 4-pin bayonet base, 2 lbs sh. \$4.00 #860-R, 860/VT-17 EMITTING TETRODE, 8"Hx5 1/2" across at widest; 4-pin base, 2 lbs. \$9.00

RACK CABINETS

CABINET CONSOLE SECTION with rear door for standard 19" rack panels. 24 1/2"H vertical panel space plus 17 1/2"H slanted space. O/a 50"Hx21"Wx23"D (16"D at top). Steel construction; no side panels. 100 lbs sh. #19-50-CONS, used, \$35.00 #3X19-50-CONS TRIPLE CABINET, three of the above sections and one side panel set, \$100. #19-42-R EQUIPMENT RACK for 19"W panel; 42"H panel space. Rear door and wheels; top has vent hole cut. O/a 51x22x22, 185 lbs. \$46. #19NS-65-DE DATA PROCESSING RACK for 19" W panels; 65 1/2"H panel space. Not drilled for standard rack mount; no rear door. O/a 69x23x30; steel, 175 lbs sh. Used, \$45.00

PAGING HORN OUTDOOR PAGING HORN with sealed voice coil and 5" dia aluminum horn. Rated 15 watts 8 ohms. Includes mounting bracket. O/a 4 1/2" deep, 4 lbs sh. #BZL-0518, NEW, \$9.95

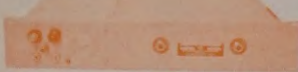
C-980/GR CONTROL C-980/GR INTERCOMMUNICATION CONTROL, usable as a two-wire field telephone when hooked up to ether C-980, TA-43/312 or KE-8 field phone. Requires H-33/PT as handset. Includes C-42 hand crank generator and call signal bell; 28D7 tube for radio intercommunication. Uses two "D" cell batteries; side mounting. 14x5 1/2 x 7 1/2; 10 lbs. Used \$14.95

A.R.C. DUAL CONTROL C-37 REMOTE RADIO CONTROL as used in light civilian and military aircraft. Separate tuning knob and dial for 190-550 KHz and 115-148 Mhz plus Off-On-Volume controls. Also selector for ten transmit crystal frequencies. Use with MC-215 spline shaft (2). Requires 28 VDC. 6 1/2 x 5 1/2 x 2 1/2, 5 lbs. Unused, \$8.95; MC-215 Spline, 6 ft, \$1.50 ea.

TUNNEL DIODE AMP

AM-6025/FRC
TUNNEL DIODE
AMPLIFIER,
same as RFL
Model 1132.

Covers 755 to 985 Mhz; "N" connections for RF input and output. Requires 115 VAC for heater and 1.4 VDC for tunnel diode. No further info. 3x19x16, 24 lbs sh. Used, \$75.00



OMNI-SPECTRA 11147B OSCILLATOR, impressive looking gold-plated miniature oscillator; no technical info available. We do know that Omni-Spectra specializes in small microwave serial components for frequencies above 1 Ghz. Solid-state; SMA fitting. 1x4x3 \$40.

RG-367/U FITTING

ANDREWS TYPE 79R FITTING for 5" dia coax H9 or RG-367/U; 50 ohm, 6-1/8" dia K1A flange. 19 lbs sh. Unused w/kit, \$100.



4.4-5.0 GHZ SYNTHESIZER



O-937/TRC-80 SYNTHESIZER, provided local oscillator signals for 4.4-5.0 Ghz military down converter; tunes 4400.8 to 4998.4 Mhz in 1.8 Mhz increments.

Has three oscillator modules, one each for units, 10's, 100's and two mixer modules. 00-99 and 000-999. Also 0-100 microammeter to monitor circuits; 11 tubes. Collins mfg.; requires 115 VAC 60 Hz. 10x19x8, 57 lbs. Used, \$125.

O-1336/TRC (Collins 69A1-1TH), similar functions as O-937 except all solid-state and no tunable mixers; 45 lbs. Used, \$225.



TWIN CAVITY FILTER



F-192/U FULL-LENGTH TWIN-CAVITY BANDPASS FILTER for 100-121 Mhz range; can be converted to 2 meter usage according to WAFIE's article in 2/80 Ham Radio. Gold-plated cavity 9-1/8" long. "N" connections on rear; 8 lbs. Unused, \$20.

F-196/U BANDPASS FILTER, 184-205 Mhz range; shorter usable cavity length than F-192. Convert to 225 Mhz area; 7 lbs. Unused, \$17.50

F-202/U BANDPASS FILTER, 314-344 Mhz range; shorter usable cavity length than F-196; convert to 420-450 Mhz; 7 lbs. Unused, \$17.50

ANTENNA RELAY

MAGNACRAFT #122RX-16 COAXIAL RELAY, 12-24 VDC SPDT with auxiliary SPST norm open 10 A contacts. 100 watts approx; 50 ohms. Has two RCA plugs and SO-239 connector. Encased with cover. 2x2x1 1/2, 2 lbs sh. Unused, \$5.95



HEAVY DUTY TRIPOD

MT-3806/FPS TRIPOD, aluminum unit originally used to support field radar but would probably make a sturdy base for a large format camera or other item with some modification. Each 1 1/2" dia x 24" leg holds 1" dia x 22" telescoping section w/ 4" dia cleated feet. Legs can be rotated 180 so equipment can be mounted upside down. 48" max height; no center column. Includes removable 9x6x4 canvas pouch. 8 lbs sh; unused, \$32.95



24 VDC 6 AMP SUPPLY



DEC H721 COMPUTER POWER SUPPLY, 120/240 VAC 60 Hz input produces outputs +10.5 V (adjusts to 12.5 V) 3 A, -15.5 V (adjusts -12.5 to -20 V) 5 A, and -5 V with current limiting and overvoltage protection (5 A current limit set, fused 25 A). W/Rotren fan; 5x19x8 1/2, 39 lbs sh. Used, \$35.

24 VDC 6 AMP POWER SUPPLY originally used in Xerox equipment but usable to power R-392 receiver and other equipment. Requires 105-125 VAC 60 Hz input. 4x9x8 1/2, 20 lbs. #AS-59134, used-checked, \$24.95



DEC H724A MULTIVOLTAGE COMPUTER POWER SUPPLY, outputs +15 V 1.5 amp, -15 V 10 A, 5 V 25 A, +8 V 2.5 A from 220 VAC 47-63 Hz 5 amp input. Has two Beyer fans. 10x15x21, 55 lbs sh. Used, \$45.00

PHILBRICK -300/+300 VDC POWER SUPPLIES, 0.001% designed regulation; net metered, rackmount.

#R-300, 300 ma; 42 lbs sh wt. Used, \$50.00
#R-600, 600 ma; 55 lbs sh wt. Used, \$65.00

H-K FM TUNERS



HARMON KARDON FM TUNERS with AM capacitors (no AM component) 75 ohm antenna, and 300 ohm IF

jacks; 1" dia tune shafts. With diagram, NEW. #00331591A, two MOSFET RF stages, MOSFET mixer, two transistor oscillator; 3:1 gear reduction. Requires 13 VDC; 4x12x4 1/2. \$9.95

#00234339 (Alps), two MOSFET RF stages, MOSFET mixer, IC oscillator; 3-gang variable capacitor; 3:1 gear reduction. 5x12x3 1/2. \$7.95

#FB113013 (Alps), one FET, two transistor oscillator; requires -12 VDC. 3x12x2 1/2, 2 lbs sh. \$4.95

IF MODULE for FM tuners, 10.7 Mhz; five transistor, three IC, three ceramic filters. With schematic; 6x13x1 1/2, 1 lb. #AMB-831, \$9.00

STEP ATTENUATOR



BALANCED "H" ATTENUATOR NETWORK, 600/600 ohm, 0-70 db in eight 10 db steps; 200-35000 Hz 2 watts. Silver-plated contacts; with knob. 2x12 1/2" dia, 1 lb. #ATT/SG15 used \$8.

#T-324-F, 0-20 db in 20 steps; 500/500A, \$9.

RF AMMETERS

0-8 RF AMMETER, 2 1/2" round black face; built-in thermocouple. GE type DW-44 with expanded scale, 6 RFA mid-scale. Unused \$10.



0-10 ANTENNA CURRENT METER with external thermocouple; p/e BC-442 and RE-2/ARC-5. 2 1/2" round black face Weston 507. Used, \$9.95

OS-8 OSCILLOSCOPE

OS-8/U OSCILLOSCOPE with 3R1 CRT; small portable unit has DC to 2 Mhz response. Vertical and horizontal sensitivity: 0-0.75 v-rms per 1" deflection. Sweep range: 3 to 50 KHz. Input impedance: 9 megohms shunted by 11 pf DC. Direct access to vertical and horizontal plates. Requires 115 VAC 50-1000 Hz. 9x6x13 1/2, 20 lbs sh. Used-reparable, \$49.50; Checked \$79.50



MANUAL for OS-8, partial repro, \$8.50

20-1400 MHZ WATTMETER



TS-118A WATTMETER, thermocouple type measures RF power over 20-1400 Mhz AM-FM-CW in ranges 20-100 Mhz (2-300 watts), 100-300 Mhz (2-500 W), 300-700 Mhz (2-250 W), and 700-1400 Mhz (2-125 W) depending on thermocouple used. DC millivoltmeter indicates voltage developed and the reading is translated into RF watts by use of calibration charts. SWR less than 1.25:1; Input impedance 50 ohms. Can be used as dummy load with proper adapter (not available). Includes thermocouples MX-1781-1782-1783-1785, tuning shunt MX-1784, connector adapter UG-999, and transit case. 8x16x20 1/2, 48 lbs sh. Used, \$165.

MANUAL, for above, partial repro, \$7.50

USM-32 PORTABLE SCOPE

AN/USM-32 SCOPE, compact unit with 10 Hz to 4 Mhz response; uses 3" 3W1 flat-faced CRT. Amplitude deflection 0.28 p-p volts/1" deflection; 600 V (DC-peak AC) max input. Rise-time 0.08 uses; 0.35 usec signal delay. Input impedance 1 Megohm shunted by 28 pf. Input attenuation factors:



0.3-1-3-10-30-100 v/inch. Horizontal sweep 10 to 200K usec continuously variable; 1 or 15 attenuation factors. Input impedance: 1 megohm shunted by 45 pf. Built-in Time Mark Generator intervals 1-10-100-1K-10K uses. Voltage calibrator 0.6 V p-p clipped sine wave. Trigger Generator 1-2 usec duration with repetition frequency 45Hz-5.5 KHz, amplitude 100 V into 5K ohms shunted by 1500 pf. Requires 115 VAC 50-1000 Hz; 9x16x15 1/2, 21 lbs sh wt. Used-reparable, \$79.50; Checked, \$119.50. MANUAL partial repro, \$12.

COMMERCIAL TEST



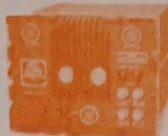
HEWLETT-PACKARD 302A WAVE ANALYZER, highly selective tuned voltmeter designed to evaluate a signal's fundamental, harmonics, and intermediate products. Range: 20-50000 Hz. Voltage: 30 uv to 300 V fullscale. Also frequency re-storer, oscillator, and AFC circuits. 12x12x14 1/2, 49 lbs sh. Used, reparable, \$265.00

Other COMMERCIAL TEST equipment, reparable:
FAIRCHILD 74-13A Calibrated Sweep Delay Scope plug-in for 765H/766H/767B, \$150.00
FAIRCHILD 76-08 50 Mhz Dual-Trace amp \$125.
FAIRCHILD 76-01A 25 Mhz Single Trace, \$45.
GENERAL RADIO 546C Microvoltage, \$65.00
GR-563A Power Output Meter, \$75.00
GR-1028A Signal Generator, 9.5-500 Mhz AM; FM and phase lock capability. \$695 w/book
HEWLETT-PACKARD 510A Wave Analyzer, 1 KHz to 1.5 Mhz; 200, 1K, 3K Hz bandwidth, \$300.
HP-313A Tracking Oscillator, w/book, \$495.
HP-522B Decade Counter, 10 Hz-120 KHz, \$50.
HP-618B Signal Generator, 3.8-7.6 Ghz, \$350.
LAVOIE LA-70B Frequency Meter, 20 Mhz-3 Ghz using 30-92 Mhz fundamental; \$100.00
MARCONI TF791D FM Deviation Meter, 4-1024 Mhz; dev ranges 5-25-75-125 KHz w/book \$295
MARCONI TF-2300 FM and AM Modulation and Deviation, 4-1000 Mhz range; dev 5-15-50-150 KHz. Solid-state, with book, \$595.00
MILLIPORE Particle Measurement Computer with GE video camera; designed to identify atmospheric pollutants by analyzing light refraction in the air, \$995.00
POLARAD MSG-2 Signal Generator, 2150 to 4600 Mhz pulse and CW, \$225.00
TEKTRONIX M Scope plug-in, 4-trace, \$175.00
TEK Type O Operational Amp plug-in, \$225.00
TEK Type CA Dual-Trace f/530-540 series \$110
TEK Type 82 Dual-Trace for 580-series, \$175.
TEK 575 Transistor Curve Tracer Scope, \$225.
TEK P6042 Current Probe, DC-50 Mhz, \$225.00
TMC FFR-3 RECEIVER with plug-in frequency tuners TM-275 (96-206 KHz), FFRD-6 (4-8 Mhz), FFRD-7B (8-16 Mhz), and FFRD-8B (16-32 Mhz); also two tuner storage racks. Used-exe \$295.

MINIMUM ORDER \$5.00

XMITER SUPPLY

DY-94A/GRC TRANSISTORIZED POWER SUPPLY, provides 550 VDC 150 ma, 250 VDC 120 ma, 20 VDC 20 ma, 200 VDC 100 ma, and 28 V 1.7 A AC or DC from 115/230 VAC 50-65 Hz or 26 VDC input. Looks like good supply for low to medium power transmitters. 9x11x13 $\frac{1}{2}$, 42 lbs sh wt. Used, \$59.50; Connectors (2), \$3 each.



54 TO 70.9 MHZ

R-125/GRC FM RECEIVER, 54-70.9 Mhz in 100 KHz steps. Variable IF 15.15-16.05; 4.3 Mhz fixed IF. 0.5 uv design sens. W/AFC, squelch, and 23 tubes. Requires 200 VDC 100 ma and 24-28 V AC or DC 1.3 A. 9x11x13 $\frac{1}{2}$, 29 lbs. Used, \$29.95



AE TONE KEY PAD

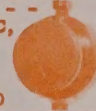
AUTOMATIC ELECTRIC TONE KEY PAD with brushed aluminum cover; use for tone control, signaling, etc. Each key produces two tone output; characters 0 thru 9, *, #. Requires 9-15 VDC. 4-3/8 sq x 2 1/4, 2 lbs. With hook-up info. #AE-WA-1127, NEW, \$9.95



CANDLESTICK MIC

T-32 MICROPHONE, antique "candlestick" style 40 ohm carbon mic; 300-4500 Hz flat response. Has push-to-talk switch and 6 foot cord with PL-68 plug. 5 1/2" dia pedestal, 11 1/2" high o/a; 4 lbs sh. Used, \$19.95

RS-38 NAVY-TYPE CARBON MIC, 100 ohm element; 25" long cell cord w/PL-68 plug stretches to 48". 2-3/8" dia with push-to-talk button. U.S. mfg, unused \$9.00



AE MONOPHONE

AUTOMATIC ELECTRIC MONOPHONE, 1940's vintage black desk telephone with a "different" look from today's telephones. Includes rotary dial, handset, and ringer. Should work in most telephone systems; no FCC #. available. 8 lbs sh. #AE-4020, used, \$14.95



FIELD TELEPHONE

TA-43/312 FIELD TELEPHONE, rugged lightweight unit replaced the famous KE-8 field phones and can be used with them in situations where radio communications are not feasible. Two conductor wire is use to connect phones; handcrank generator signals transmission and clacker alerts of incoming call. Requires two "D" cells to operate H-60 handset. Includes canvas carrying bag and strap. 12x7x4, 12 lbs sh wt. Used-checked, \$49.50



BA-279 BATTERY

BA-279/U BATTERY for back-pack transceivers AN/PRC-8-9-10 and Canadian PRC-509-510. Each is unused, 10/65 date code. We check them on AN/PSM-13 test set. 8x8x12 $\frac{1}{2}$, 6 lbs sh. #BA-279-8H, all cells test 8 hr life, \$12. #BA-279-WF, weak filament (1.5 V) only; all other cells test 8 hr life, \$8.95 #BA-279-WC, 2 or more cells weak, \$4.95

MX-3568/PRC BATTERY ADAPTER, fastens in place of PRC-8-9-10-509-510 battery box and has 6' cable with 7-pin connector for connection to remote power source. 3x9x2 $\frac{1}{2}$ 3 lbs, unused \$10



BA-279

MX-3568

AMT-6 RADIOSONDE

AN/AMT-6C RADIOSONDE WEATHER ANALYSIS SET, designed to be released from high-flying aircraft to transmit temperature, humidity, and pressure data on its descent. Transmits pulse signals in 399-403 Mhz range at repetition rate of 20-550 Hz, 140 watts peak. Includes 18" dia drogue and 48" dia vented parachutes, humidity-temperature-pressure elements, and tubes 5696, 5875, 6026. Requires 1.5, 6, 135 VDC. Looks like an interesting experimenter's item. 5 1/2" dia X 21 1/2"H, 9 lbs sh. Unused, \$14.95



SELSYN - INDICATOR

MC-507 SELSYN-INDICATOR, usable as selsyn transmitter in wind direction or beam locator systems in conjunction with I-81, I-82, ID-91, ID-637, etc remote compass indicators (see page 9 our WS-83 Catalog). Also since it has 0-360° scale in 5° increments, it can be easily made into an indicator itself simply by loosening the housing screws allowing it to rotate freely. Has added feature of -25-0+25 degree correction scale. Will operate on 12 to 24 VAC 60 Hz. 3" dia scale X 2 1/2"; 2 lbs. Used \$8.95 2/\$16.



2-30 MHZ POWER AMP

POWER AMP/MODULATOR DECK from T631/GRC, a 2-30 Mhz transmitter 400 watts peak AM at 100% modulation or 100 W nominal AM-CW. Uses a 4X250 in P-A, two 4X250's in modulator; RF input 4 Vrms. Has 4-position switch bands 2-3, 3-6, 6-10, 10-30 Mhz and three 0.45-18 uH variable ribbon inductors all driven by 26 VDC motor. Other components 3-Klmae sockets and chimneys for 4X-250's, 12-Centralab 850 4 KV capacitors, and blower. Requires 26 VAC, +26 +250 +1100 -105 VDC. 6 1/2x15 1/2x13 1/2, 34 lbs. w/schematic, \$115. MANUAL for MRC-55 including R-808 and T-631/GRC-14 radio sets; 6 lbs., \$22.00



POWER AMPLIFIER

POWER AMPLIFIER ASSEMBLY removed from 225-400 Mhz transmitter; makes an excellent foundation for your power amp. Has oscillator section with 12AT7, 1st doubler (12AT7), buffer (12AT7), 2nd doubler (4X150), and a push-pull tripler with two 4X150's. Manual controls for crystal select, RF driver w/lock, and PA tuning w/lock. PA-grid and plate currents could be monitored by adding a 200 microammeter and switch. Silver-plated chassis includes heavy duty blower and tubes 3/12AT7, and 3/4X150A (6 V fil.) 14x10x5, 33 lbs. #PA/TED w/schem, \$77.



SWITCHING SUPPLIES

LAMBDA SWITCHING POWER SUPPLIES, compact, energy efficient units useful for applications where RF noise is not a consideration. Outputs C. Unused or little used though cosmetic cleaning may be desired:

Output	Reg	Size	Wt	Price
LUS-8-24	24 V	700 ma	4 3/4x1 1/4x4	2 \$10.95
LUS-11-15	15 V	7 amp	4 3/4x3 1/8x4	4 \$19.95
LUT-12-5122	-5 V	12 A, 12 V	1.5 A, -12	
	V	500 ma	4 1/2x2 1/2x9 1/2	4 \$24.95
LYS-X-28	28 V	5 amp	1 1/2x5x7	6 \$29.95



POWER SUPPLY/SPEED CONTROL BOARD for record player. Consists of speed control circuit for 33/45 RPM player using 29 VDC motor (net included). Has 22 transistors w/usable lead lengths, two opto couplers (4N27). An interesting gadget beard w/schematic. #HK-134450, \$2.25

WHAT-CHA-MA-CALL-IT

We were told these were originally used to allow up to four computers to access one peripheral, but we have no further info. Hence, we are selling them for parts which are RS232-type connectors 4 ea DB25S and 1/DB25P, Triad 26.8 VCT 1.7 amp transformer, 4x5x1 1/2 heatsink, two circuit cards, 8' 3-cond line cord, and 3x12x10 1/2 enclosure. PC cards have 4/7400, 7401, 3/7404, 5/7420, 7430, 7473, 7476, 7493, 5/7490, 4/7495, 3/74121, 74153, 74156, 74, 64, 2/75189, 555, MC1469R, MC1463R, 2N3055, 2N3101, and 8800 KHz crystal. 12 lbs sh. #240-400, used, \$10.95 #340-400, as above except with switch selectable xtal 8800/2400 KHz 300/110 baud. \$12.95



PAPER TAPE READER

TALLY PAPER TAPE READER/TRANSMITTER, consists of oscillator, receiver, legio, and power supply cards. Uses standard one inch paper tape; selectable 5 or 8 channels, A or U mode. Output can be set to 0, -3, -6, -9, -12 dbm. No specific data but believe this to be 300 baud Requires 115 VAC 60 Hz. Size: 9-5/8x12x4 1/2, 11 lbs sh. #PTR-760-328, used, \$14.95 #760-128 TALLY PAPER TAPE READER, similar to above; no selectable output, 100 baud. \$8.95



JOYSTICK

HIGH-QUALITY JOYSTICK with removable center return springs. Uses two Bourn 5K ohm pots with trim adjustments for position centering. 1-3/8"H stem above panel surface; 1 1/2" depth required behind. O/a approx 2 1/2 x2 1/2, 1 lb. #JS-14227 NEW \$7.



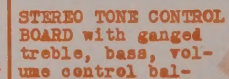
HARMON-KARDON PCB

HARMON-KARDON AUDIO COMPONENT CIRCUIT BOARDS, all new surplus with schematics:



FOUR CHANNEL AUDIO AMPLIFIER, each channel can be used independently of the other. Has 28 transistors--no specifications. Power input 47 V 1.5 amps max; output transistors are Sanken 61107. With schematic; board 7 1/2x4, 3"H inclg plate. #HK-AF27E \$15.

STEREO TONE CONTROL BOARD with ganged treble, bass, volume control balance pots. Tone controls are each 2/4x1 1/2 50K; volume is 4-gang 100K. Also 3/4PDT push on/push off switches, 6 transistors; -26 VDC req. #HK-0866, \$5.00



TONE CONTROL-AUDIO EQUALIZER, five ranges: 60, 320, 1K, 5K, 12K Hz. Requires addition of five 50K ohm slide resistors (not available) and -30 VDC. Schematic included. 4 1/2x3, 1 lb sh. #HK-26243A, \$3.50 #HK1561, similar to above; no schematic \$2.50



RECTIFIER-CAPACITOR CIRCUIT BOARD, has capacitors: 7/47 mf 100 V, 2/47 mf 63 V, 2/500 mf 50 V. 6x3x1 1/2, 1 lb. #HK-26239B, \$1.50

